

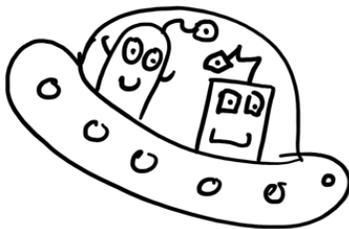
**A fable about**  
**TRIPLE ENTRY BOOKKEEPING™**  
**and other sci-fi adventures in**  
**SUMPTUOUS ACCOUNTING™**  
**on Parallearth**

Created by Karl H Richter © 2018 (version 2.7.1) <sup>1</sup>

[www.sumptuousaccounting.org](http://www.sumptuousaccounting.org)

**ABSTRACT:**

Triple Entry Bookkeeping™ is an accounting methodology that incorporates the non-financial impacts of commercial transactions. These externalities, whether positive or negative, are by definition not reflected in conventional accounting methodologies, and therefore often excluded from market prices and asset valuations. Such omissions can result in market failure if price sensitive decisions are disconnected from their broader societal consequences. Triple Entry Bookkeeping™ corrects this imbalance by modifying both the debit and credit entries to reflect the externalities of a transaction, so that they align more closely with the true cost (or value). This has the effect of adjusting the perceived price for both the buyer and the seller, as well as the future purchasing power of market actors based upon their historic choices. It was inspired by studying the behaviour of social impact investors when they offer concessional capital pricing in anticipation of positive impact. This departure from the risk adjusted norms of modern portfolio theory is referred to as the implied impact<sup>2</sup> of investments. Triple Entry Bookkeeping™ operates at the level of the underlying mercantile activity. It expands traditional accounting methodologies to integrate both positive and negative impacts, through a unified approach, across the full gamut of economic activity. It also includes elements of behavioural tax and money supply functions, and assumes a context of digital currency to enable the functionality of programmable money.



<sup>1</sup> Version 2.4 (4 Oct 2018) was originally submitted to the [Investor Responsibility Research Center Institute \(IRRCi\)](http://www.investorresponsibilityresearchcenter.org)

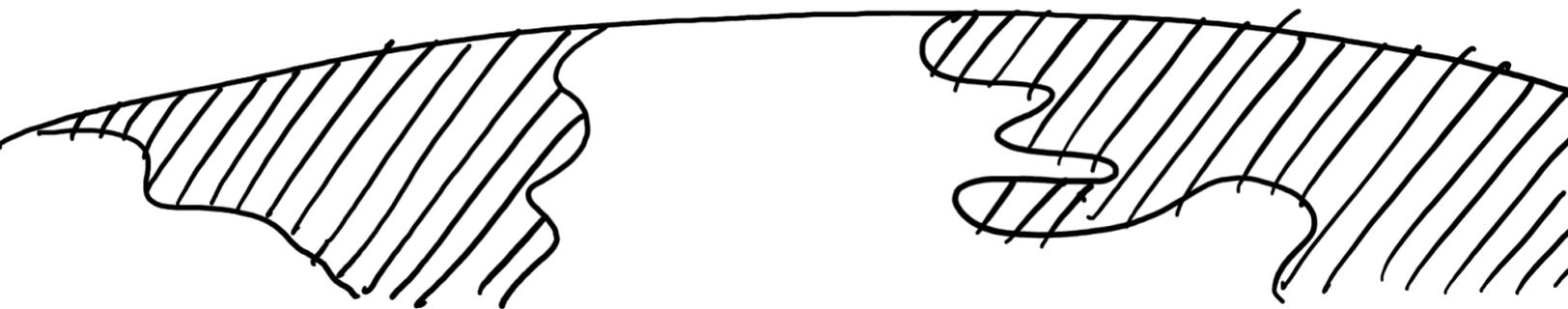
<sup>2</sup> See [www.implicitimpact.org](http://www.implicitimpact.org)

**Parallearth is a planet in a nearby galaxy.**

**It is revered across the universe as an exemplar of social justice, environmental custodianship and prosperity.**

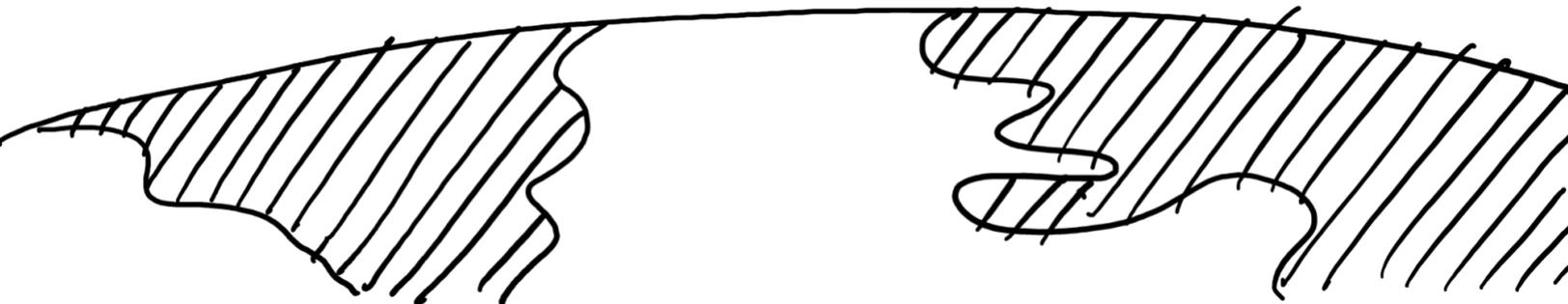
**It resembles Earth almost exactly except that Parallearthlings appear happier than Earthlings.**

**...but they do look very weird!**



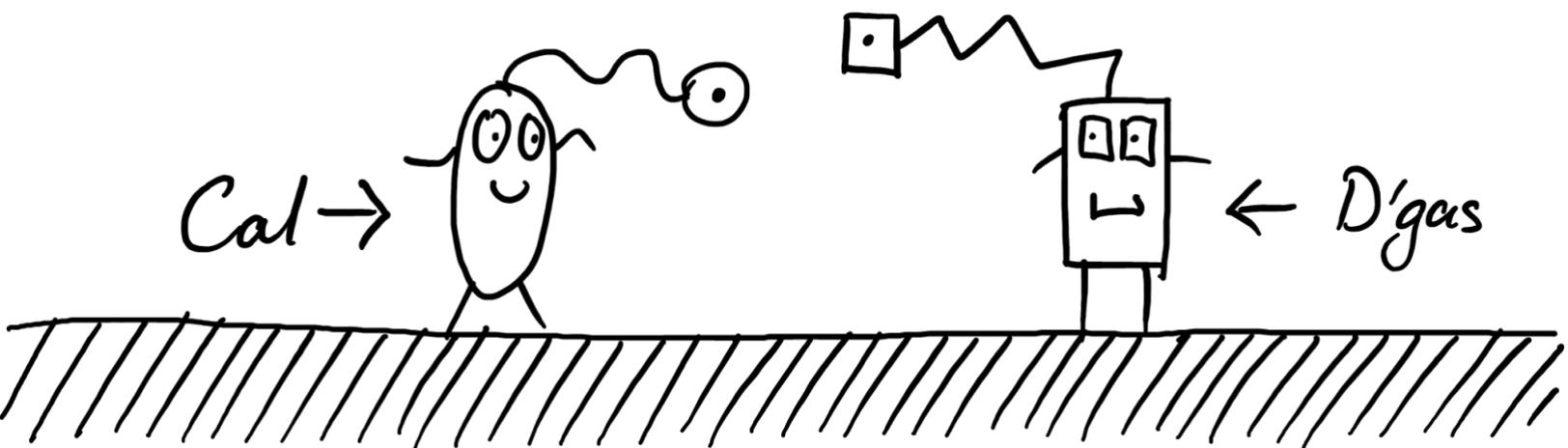
**Scene 1:**

# **INTRODUCTION**



- **Parallearthlings all have a third eye on a tentacle, through which they can see themselves and their actions the same way others do.**
- **They also practise Triple Entry Bookkeeping<sup>TM 3</sup>.**

(These facts may, or may not, be related)



<sup>3</sup> The term Triple Entry Bookkeeping<sup>TM</sup> was coined in 2018 by Karl H Richter, it is trademarked so that the meaning remains as intended in this paper.

## The sumpt is the “third entry” in Triple Entry Bookkeeping™

↳ From Latin nouns

- Debit - debitum<sup>4</sup> - “What is owed”
- Credit - creditum<sup>5</sup> - “What is entrusted”
- **Sumpt - sumptum<sup>6</sup> † - “What is claimed”**

- Triple Entry Bookkeeping™ introduces a new concept – the sumpt – which enumerates the intangible value and impact of a transaction, as interpreted by a third party (the Parallearthling’s third eye).
- The term “sumpt” in this context refers to “a claim of impact (intangible value)” pertaining to a transaction, and effectively acts as an exchange rate between financial capital and non-financial capital.<sup>7</sup>
- Theoretically many different sumpt rates are possible for each transaction, because the idea of what is impactful (and what is not) is complex and based upon individual priorities and ethical judgements.
- However, in Triple Entry Bookkeeping™ the sumpt rate is determined by the legislative authority that has jurisdiction over the transaction.
- The sumpt serves as a mathematical balancing coefficient, which internalises the economic externalities of a transaction.

† By the way – the word “sumptuous”<sup>8</sup> is derived from the Latin word “sumptus”, the perfect passive participle of “sumo, sumere”, which means “take” or “claim”. Therefore this form of bookkeeping is affectionately referred to as Sumptuous Accounting™<sup>9</sup> in this paper.

<sup>4</sup> <https://en.m.wiktionary.org/wiki/debitum>

<sup>5</sup> <https://en.m.wiktionary.org/wiki/creditum>

<sup>6</sup> <https://en.m.wiktionary.org/wiki/sumptum>

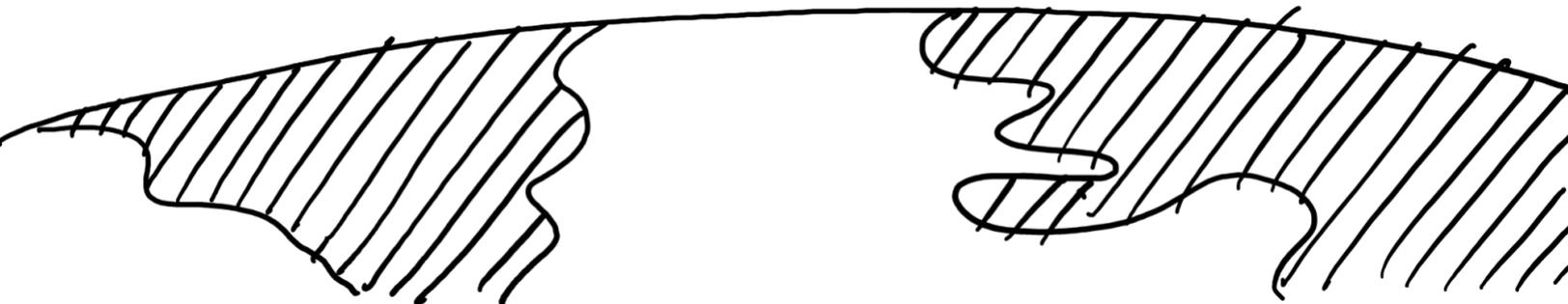
<sup>7</sup> This offers an arithmetic framework to align financial pricing more closely with the true cost (or value), and it could support [proposals by Yanis Varoufakis for the Kosmos](#) (a synthetic digital currency modelled on the Bancor by John Maynard Keynes, put forward as a unit of account to track international flows of assets and liabilities).

<sup>8</sup> <https://en.m.wiktionary.org/wiki/sumptuous>

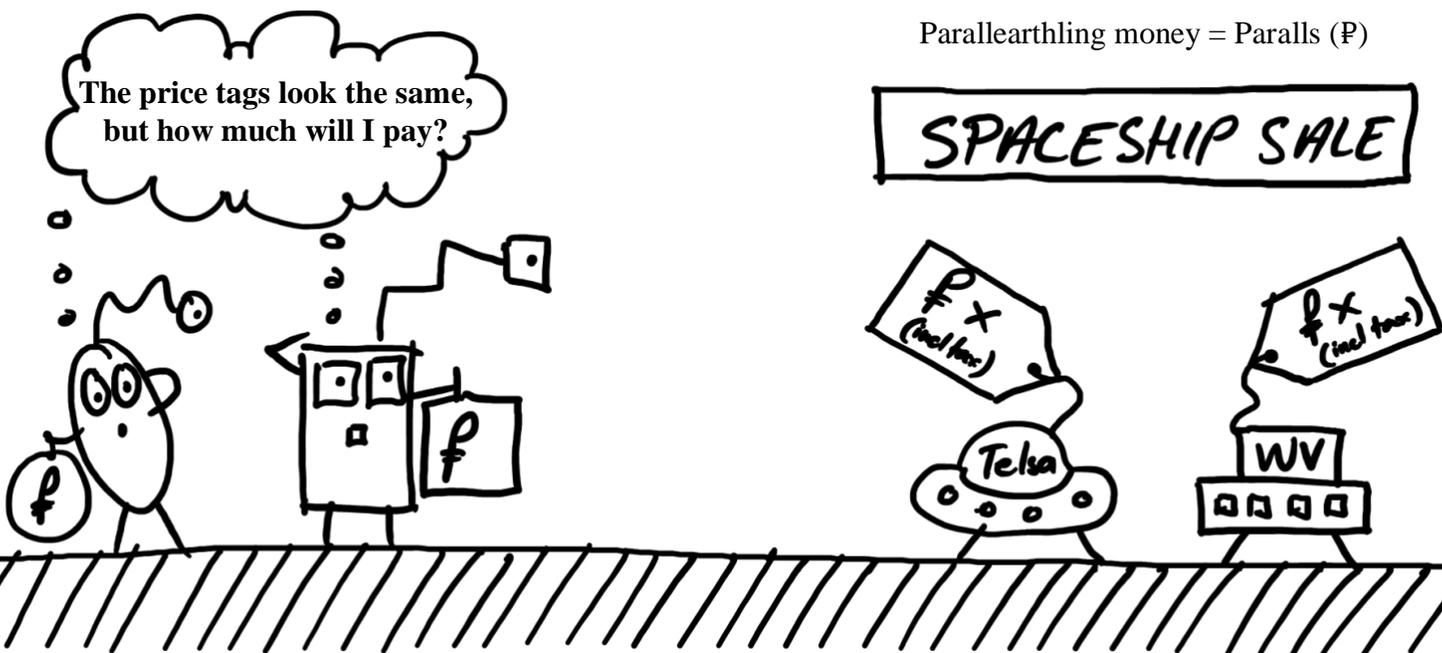
<sup>9</sup> The term Sumptuous Accounting™ was coined in 2018 by Karl H Richter, it is trademarked so that the meaning remains as intended in this paper.

**Scene 2:**

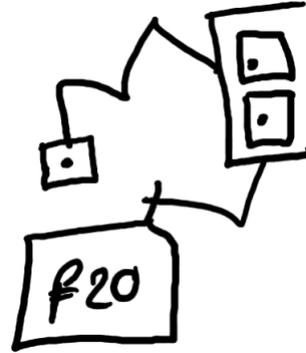
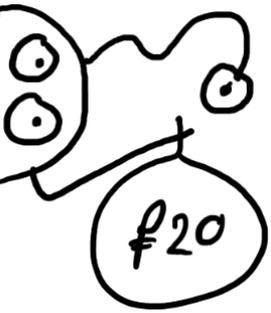
**The PURCHASE**



- Let's watch Cal and D'gas buy new spaceships – and record the transactions according to Sumptuous Accounting™ principles and Triple Entry Bookkeeping™.



## 1) First, let's look into their wallets?



- Cal and D'gas both have the same amount of money (£20)
- But different purchasing power – why?

## 2) Their wallets include a sumpt rate

- Their wallets are programmable, which adjust the purchasing power of Cal and D'gas based upon their personal sumpt rate.
- Their personal sumpt rate is a percentage, which is calculated from the accumulated net impact (positive and negative) of their historic financial transactions (purchases and investments).
- Their sumpt rates are built up over time and are updated after each transaction.

(Default / neutral = 0%)

- Cal always buys Fairtrade products and energy from renewable sources.



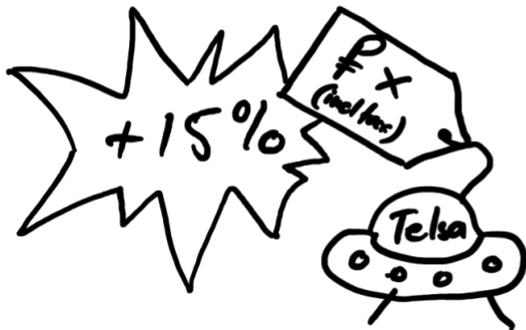
- This net positive impact results in a sumpt rate of +20%.
- As a result, Cal is entitled to a discount on purchases because the sumpt rate is positive.

- D'gas often buys clothes made with child labour and energy from polluting sources.



- This net negative impact results in a sumpt rate of -30%.
- As a result, D'gas is liable for a surcharge on purchases because the sumpt rate is negative.

### 3) The prices of the spaceships also include a sumpt rate



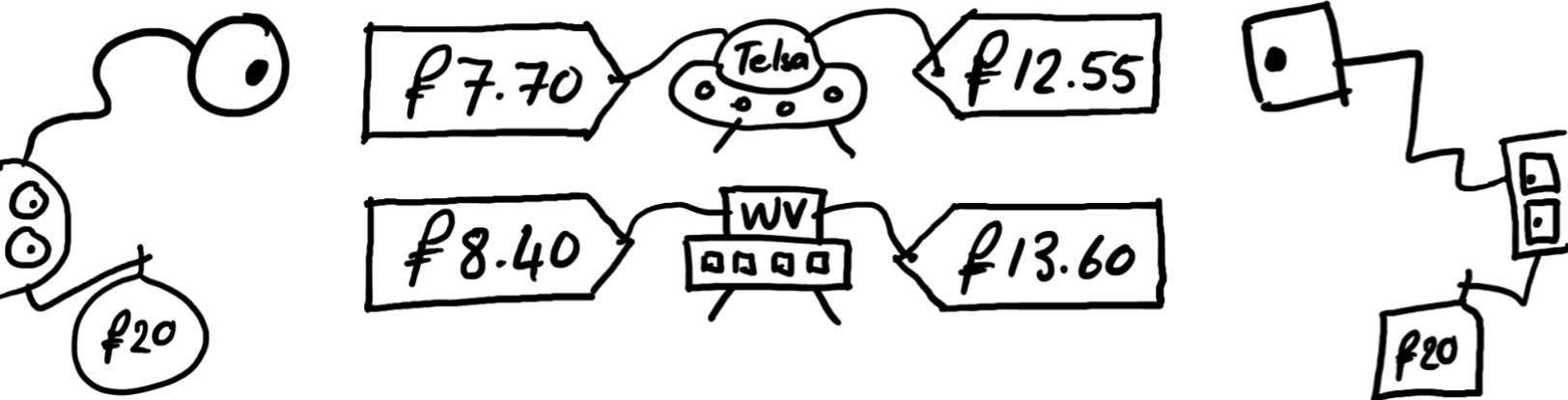
- The Telsa runs on love potion.
- As a result of the net positive impact, the Telsa includes a sumpt rate of +15%.



- The WV runs on hamster oil.
- As a result of the net negative impact, the WV includes a sumpt rate of -20%.

#### 4) They look through their third eyes

- Remember, they both have ₱20 in their wallets, and both the Telsa and WV have the same retail price of ₱X (nominally ₱10).
- But Cal and D'gas see different relative prices based upon their personal sumpt rates, and when combined with the sumpt rates of the spaceships on offer.



## 5) How did the programmable wallets calculate the relative prices?

- **STEP 1: The sumpt rates of the buyers and the spaceships are combined to create a unique sumpt rate that is applied to each potential purchase scenario.**

The absolute value (i.e. without +/- sign) of the buyer's sumpt rate " $|S_b|$ " is multiplied by the sumpt rate of the prospective purchase " $S_p$ " to calculate the sumpt adjustment for each potential purchase scenario. The sumpt adjustment is then added to the buyer's original sumpt rate " $S_b$ ". This calculates a new composite sumpt rate " $S_{bp}$ " for the transaction, which is unique for each purchase scenario, and which also becomes the buyer's new sumpt rate if they make that purchase. It is expressed according to the following equation:

$$(|S_b| \times (S_p)) + S_b = S_{bp}$$



Purchase scenarios	Cal (sumpt rate $S_b$ is +20%)	D'gas (sumpt rate $S_b$ is -30%)
<p><b>Telsa</b></p> <ul style="list-style-type: none"> <li>• The sumpt rate <math>S_p</math> is +15% because of the net positive impact.</li> <li>• This improves the sumpt rate for the transaction.</li> </ul>	$\begin{aligned} & ( +20\%  \times (+15\%)) + (+20\%) \\ & = \quad 3\% \quad + \quad 20\% \\ & = \quad \quad \quad 23\% \end{aligned}$	$\begin{aligned} & ( -30\%  \times (+5\%)) + (-30\%) \\ & = \quad 4.5\% \quad -30\% \\ & = \quad \quad \quad -25.5\% \end{aligned}$
<p><b>WV</b></p> <ul style="list-style-type: none"> <li>• The sumpt rate <math>S_p</math> is -20% because of the net negative impact.</li> <li>• This worsens the sumpt rate for the transaction.</li> </ul>	$\begin{aligned} & ( +20\%  \times (-20\%)) + (+20\%) \\ & = \quad -4\% \quad + \quad 20\% \\ & = \quad \quad \quad 16\% \end{aligned}$	$\begin{aligned} & ( -30\%  \times (-20\%)) + (-30\%) \\ & = \quad -6\% \quad -30\% \\ & = \quad \quad \quad -36\% \end{aligned}$

**STEP 2: The relative retail price is calculated for each scenario.**

*(Note: A positive composite sumpt rate for the transaction results in an effective discount on the purchase, whereas a negative composite sumpt rate results in an effective surcharge.)*

The nominal retail price “ $P_n$ ” is multiplied by the composite sumpt rate “ $S_{bp}$ ” for each potential purchase scenario. The result is then subtracted from the nominal retail price “ $P_n$ ” to calculate the relative sumpt adjusted retail price “ $P_s$ ”, which is unique for each scenario. It is expressed according to the following equation:

$$P_n - ( P_n \times S_{bp} ) = P_s$$

Purchase scenarios	Cal	D'gas
Telsa	$\begin{aligned} & \text{₹}10 - (\text{₹}10 \times 23\%) \\ & = \text{₹}10 - \text{₹}2.30 \\ & = \text{₹}7.70 \end{aligned}$	$\begin{aligned} & \text{₹}10 - (\text{₹}10 \times (-25.5\%)) \\ & = \text{₹}10 + \text{₹}2.55 \\ & = \text{₹}12.55 \end{aligned}$
WV	$\begin{aligned} & \text{₹}10 - (\text{₹}10 \times 16\%) \\ & = \text{₹}10 - \text{₹}1.60 \\ & = \text{₹}8.40 \end{aligned}$	$\begin{aligned} & \text{₹}10 - (\text{₹}10 \times (-36\%)) \\ & = \text{₹}10 + \text{₹}3.60 \\ & = \text{₹}13.60 \end{aligned}$

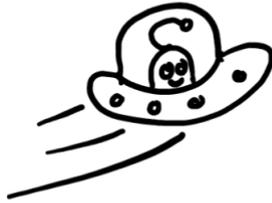
*(Remember: Both spaceships have the same nominal retail price of ₹10.)*



## 6) Making the purchases and bookkeeping

Adjustments to wallets:

- Cal buys the Telsa

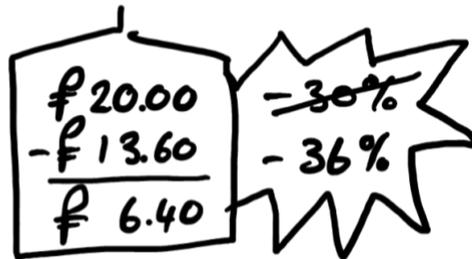
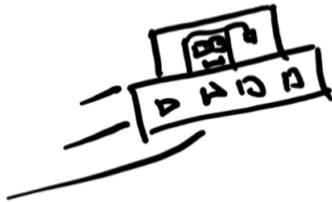


New cash balances &

New sumpt rates

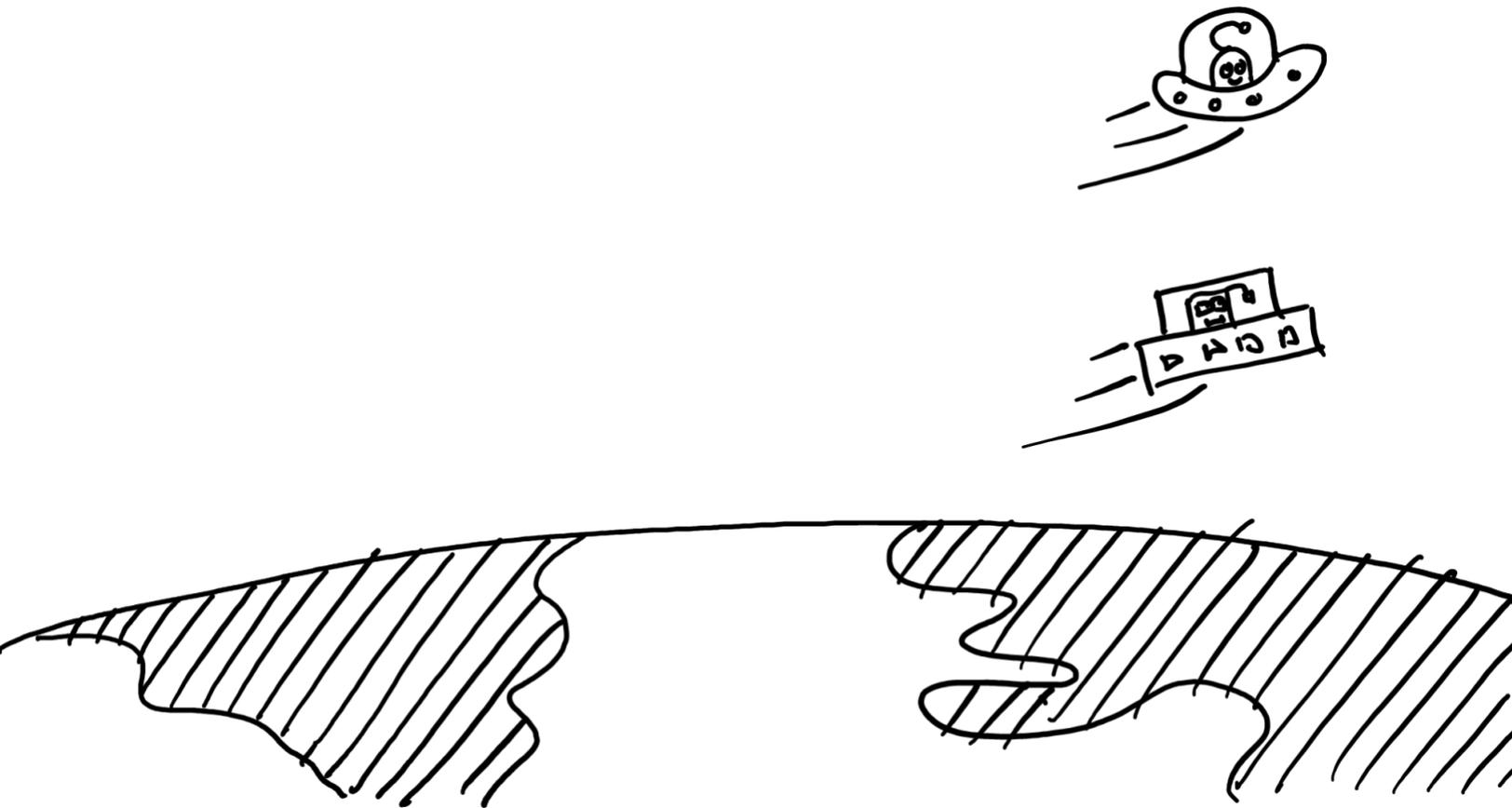
*(The composite sumpt rate "S<sub>bp</sub>" from the last purchase of Cal and D'gas is carried forward as their new sumpt rate)*

- D'gas buys the WV



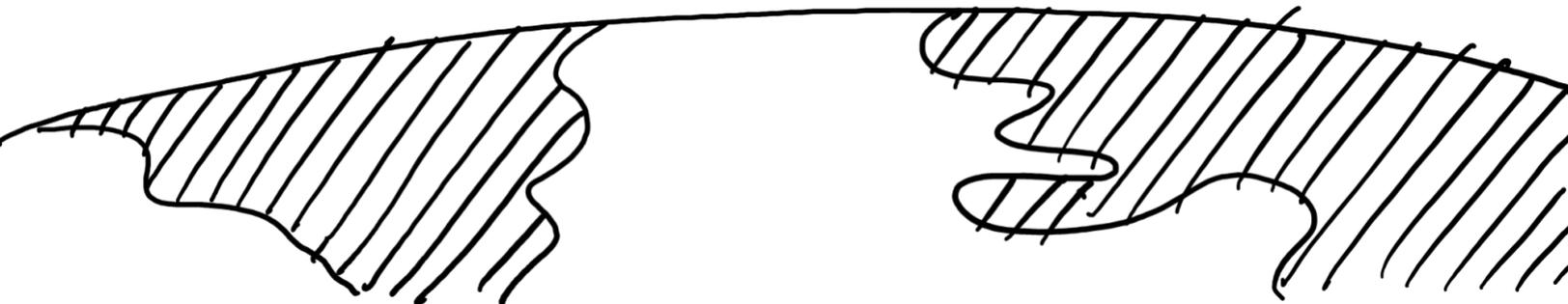
- **Cal and D'gas are happy with their purchases and accept that the prices they paid were fair to balance their desires, values, and the externalities relating to their respective purchases.**

*(Hint: for Parallearthlings who would like to simulate accounting practises of Earthlings, they can use a sumpt rate of "0%", which will make Triple Entry Bookkeeping™ function like Double Entry Bookkeeping.)*



**Scene 3:**

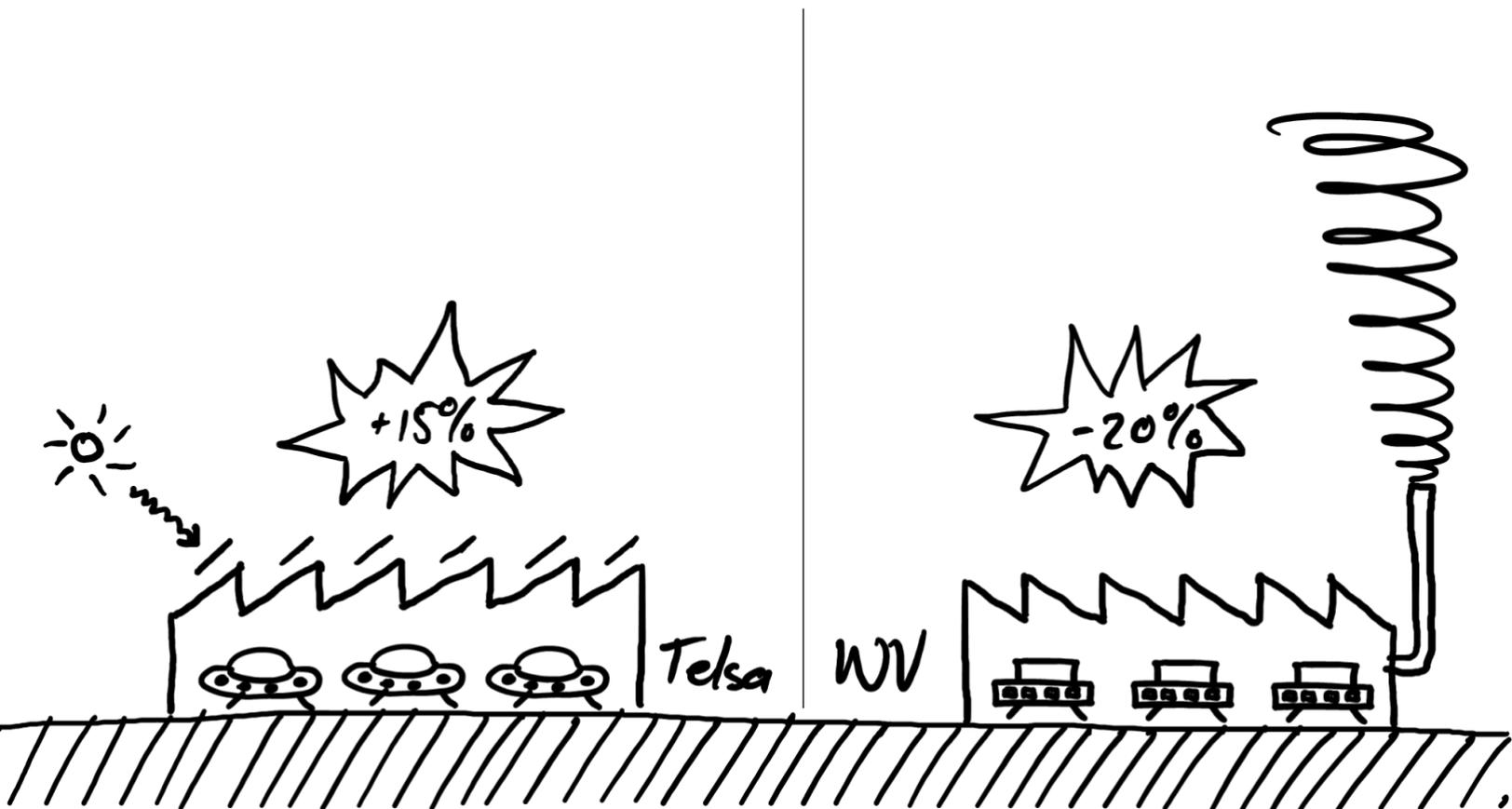
**The SALE**



## 1) The sumpt rates of the merchandise

- The sumpt rates of the spaceships are derived from assessing the net impact of the inputs, activities, and outputs relating to their production, usage, and disposal.
- This applies equally to tangible and intangible goods, services, and financial instruments.

*(Remember: the sumpt rate for the merchandise is determined by the legislative authority that has jurisdiction over the transaction.)*

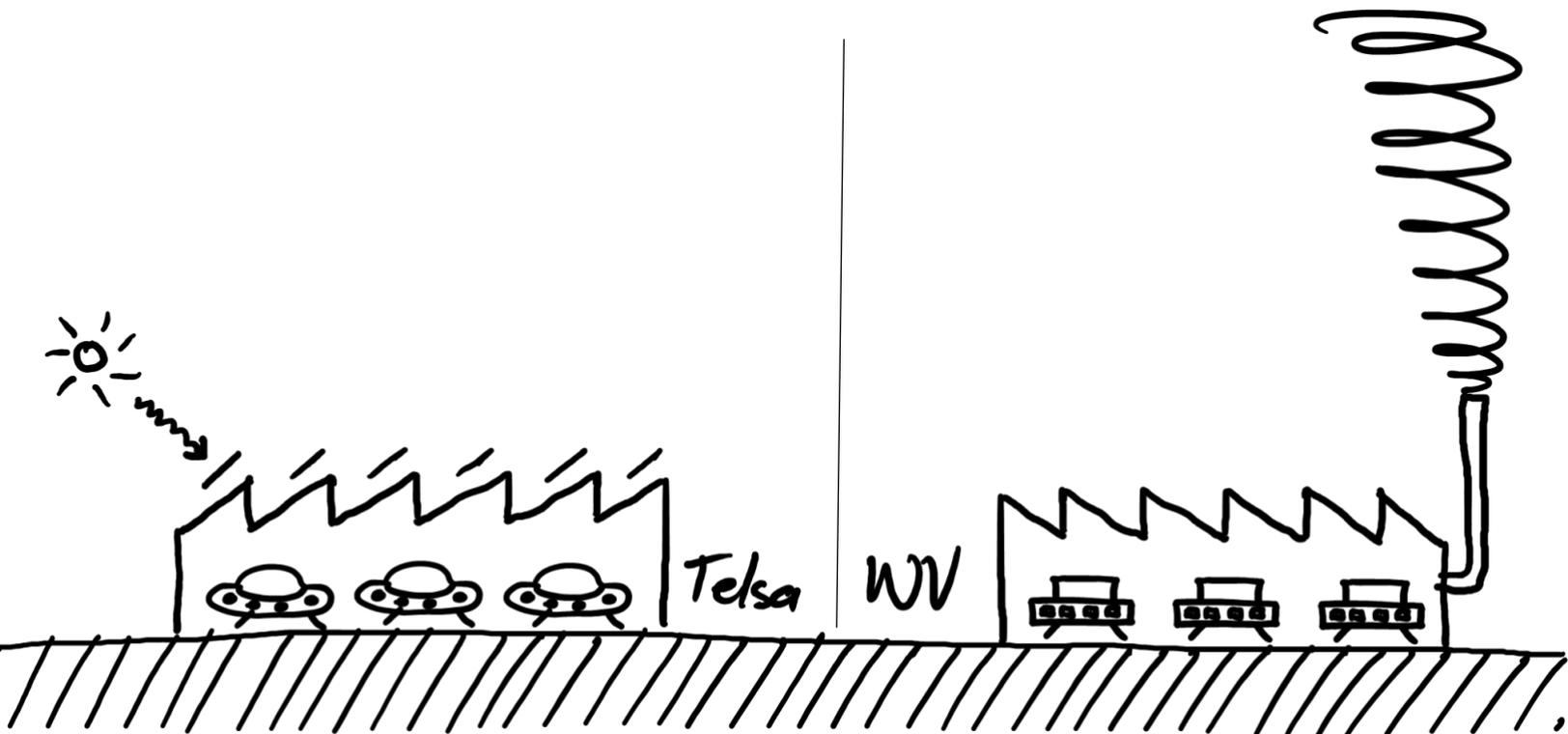


## 2) Triple Entry Bookkeeping™ for the vendors

- The sumpt rates of the spaceships are applied to the credit entry in the vendors' balance sheets. This is done by calculating a sumpt adjustment for each transaction, either positive or negative depending on the net impact, which either increases or decreases the bookable revenue respectively:

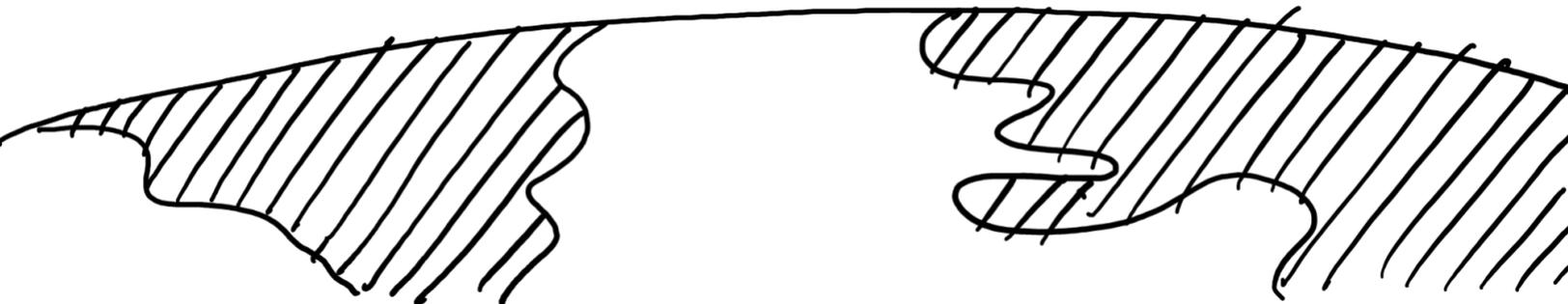
(Remember: the nominal retail price is ₱10 for both the Telsa and the WV transactions.)

	Telsa (sumpt rate $S_p$ is +15%)	WV (sumpt rate $S_p$ is -20%)
Starting balance	100.00	₱100.00
Nominal retail price	+ ₱10.00	+ ₱10.00
Sumpt adjustment	+ ₱10 (15%) = + ₱1.50	+ ₱10 (-20%) = - ₱2.00
Sales tax (19%)	- ₱10 (19%) = - ₱1.90	- ₱10 (19%) = - ₱1.90
New balance	₱109.60	₱106.10



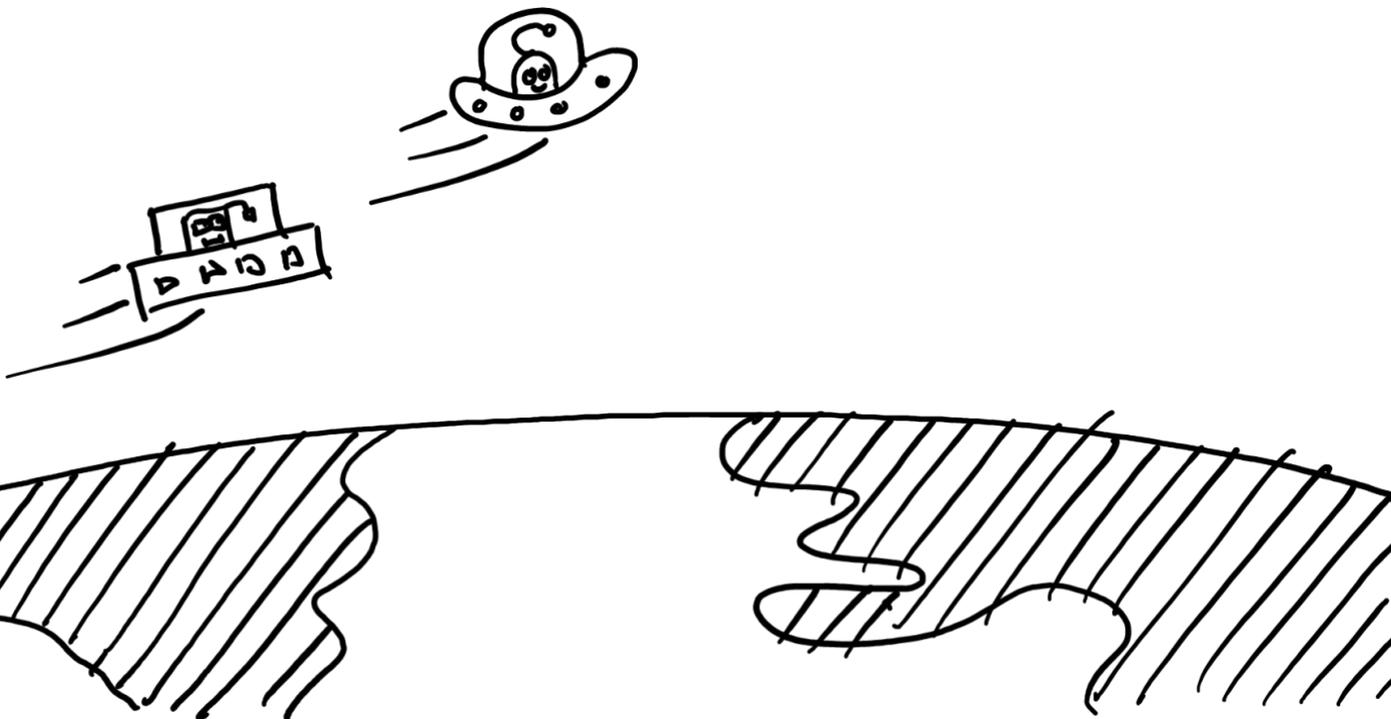
**Scene 4:**

**SUMMARY PRINCIPLES  
and CLARIFICATIONS**



## Summary principles

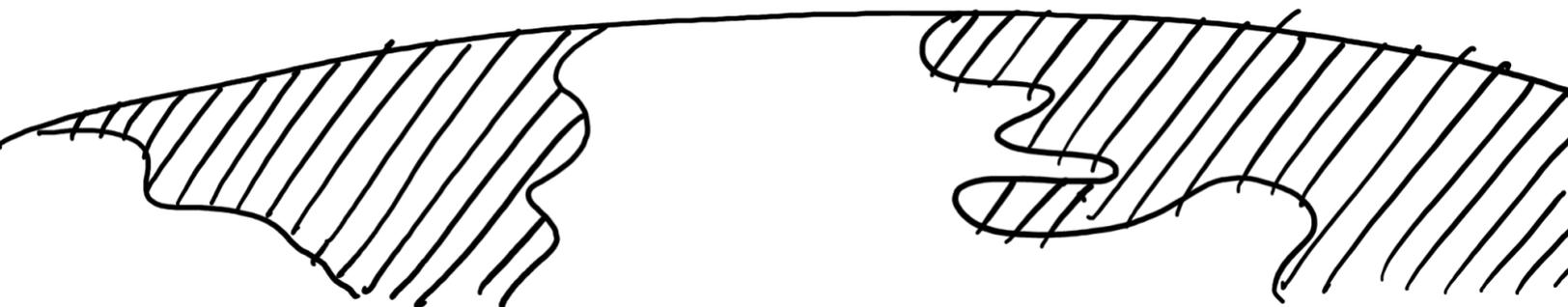
- Triple Entry Bookkeeping™ includes a hybrid of behavioural tax and money supply functions.
- It accepts that the underpinning rules of markets, accounting, and money are social constructs. They are not fixed like laws of physics.
- Consider Triple Entry Bookkeeping™ in the context of social constructs and control norms on other planets, like Earth, which has fiat currency, fractional reserve banking (private sector money creation), quantitative easing... and where the role of central banks is being questioned because of crypto currencies.
- A transaction with net positive impact effectively increases the money supply, whereas one with net negative impact decreases the money supply.
- Sumpt adjusted pricing signals provide nudge effects that favour transactions with net positive impact - by aligning financial benefit with net impact, whilst maintaining freedom of choice and preserving market dynamics.
- In price sensitive decision-making, the sumpt rate has a similar effect to how tariffs and cash-back incentives modulate the effective retail price experienced by the buyer.





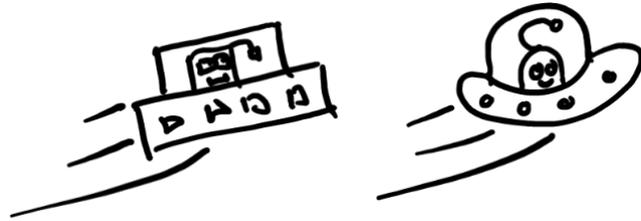
## Incentives

- **Consumers:**
  - rewarded for making “good” purchase decisions.
  - also, “good” decisions today translate into more purchasing power in future.
  
- **Vendors:**
  - products and services with a higher net positive impact translate into higher bookable revenues.
  - as a result, associated asset valuations are higher.
  - which affects credit worthiness, stock price, and cost of capital.
  
- **Vendors in the market can increase their profit by raising retail prices, reducing costs, or improving the sumpt rate of their offerings by improving their net impact.**
  
- **Triple Entry Bookkeeping™ can help reduce rent-seeking behaviours and value extraction practises by rebalancing relative bookable revenues to compensate, and thereby reduce perverse incentives.**



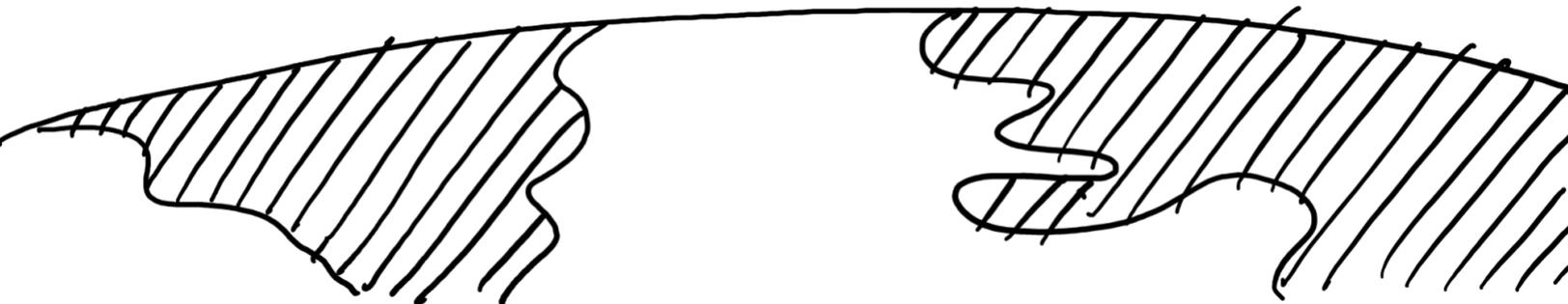
## Who determines the sumpt adjustment?

- The role is jointly shared between the parts of governments usually responsible for tax policy and monetary policy.
- They can use multiple data sources about intangible value and net impact. (e.g. actual data and reports, or industry/ sector averages)



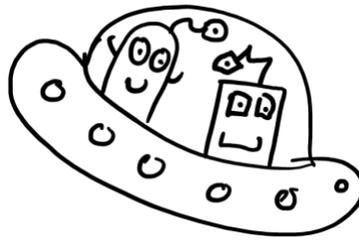
## Factors that could influence the sumpt rate

- Scientific and academic knowledge, as well as expert opinion about positive and/or negative impact.
- Sociopolitical priorities
  - **Local** e.g. city/ local authority
  - **Regional** e.g. state/ national or federal government
  - **Global** e.g. OECD, World Bank, WTO
- Place, time, and context of purchase and/or manufacture.
- Normative values, public sentiment, and contemporary popular opinion.
- Peer review and trust networks - Potentially incentivised by being rewarded with an improved sumpt rate for providing valid and correct contributions to the knowledge base.
- Other – for example, the sumpt rate of the merchandise may need to be weighted by the nominal retail price in order to prevent gaming. *(This might be needed to prevent a devious person from improving their sumpt rate by buying many cheap items with positive impact, with the explicit intention of then using this strong sumpt rate to disproportionately mitigate the sumpt surcharge of a future expensive purchase that has net negative impact.)*



# THE END

Created by  
Karl H Richter  
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## ABOUT THE AUTHOR:

Karl H Richter – is the Executive Director and Co-Founder of EngagedX, which is a specialist consulting company in the field of social impact investing. It focuses on thought leadership, research, product development, advocacy, and policy. Karl is an advisor to the ixo Foundation, the China Alliance of Social Value Investment, and the Global Value Exchange; and a guest lecturer at Oxford University Saïd Business School for the executive training programmes on impact management and social impact investing. Karl recently served a 12 month assignment as Head of Research and Knowledge at the United Nations SDG Impact Finance initiative (UNSIF), where he focused on launching its research agenda and establishing principles for SDG impact management and certification. Previously he led the OECD’s data standardisation work-stream on social impact investing, covering financial and impact performance reporting as well as market segmentation; was a Member of the European Commission’s expert group on social entrepreneurship (GECES); led the production of the global-first financial benchmark for social impact investing (featured as exemplar by the OECD to the G7); was appointed by the European Commission’s Joint Research Centre to develop a meta-framework for impact management; frequent conference speaker, including invitation by the US Secretary of State as plenary speaker for the Global Impact Economy Forum at the US State Department.

